

Consultation on a possible scheme for incentive regulation to promote efficiency and innovation in addressing electricity system needs

This consultation is run by the Florence School of Regulation (FSR) at the European University Institute on behalf of the EU Agency for the Cooperation of Energy Regulators (ACER).

Link to the consultation site: <https://fsr.eui.eu/wp-content/uploads/2023/11/Public-consultation-document.pdf>

Link to the FSR report “Benefit-based incentive regulation to promote efficiency and innovation in addressing system needs”:

https://www.acer.europa.eu/en/Electricity/Infrastructure_and_network%20development/Infrastructure/Documents/Benefit_based_regulation_2023.pdf

General Feedback:

currENT is overall very positive about the proposed scheme and believes it could make a big difference in the deployment of innovative grid technologies. Feedback below are considered recommendations for improvement.

Questions (A-G)

- A. *Do you consider that the current regulatory approach to network investments in your country might result in the TSO(s) opting for capital-intensive solutions to system needs (the ‘CAPEX bias’) and, more generally, does not promote the adoption of innovative and more efficient solutions to system needs by TSO(s)?*
- Yes
 - In many (most) European countries, a strong CAPEX bias results in TSOs opting for capital intensive projects and being averse to projects that drive operational expenditures (OPEX). It pushes TSOs to favor new physical infrastructure investments (new lines, new substations), whenever possible, at the expense of “smarter”, typically software base (or with a high software or service content) solutions which usually come with higher OPEX than traditional investments.
 - Some countries (including certain states in the US) allow flexibility to capitalize high-value software projects, i.e. include in the regulated assets base.
- B. *Do you agree that the sharing of congestion income could be used to incentivise TSOs efficiently to expand the interconnection capacity? If not, why?*
- Congestion income in Europe is only one (fairly limited) price-related signal of congestion. It does typically not reflect congestions within a country. Therefore, using congestion income as the only metric would have limited effect. Redispatch cost could be a complementary parameter. I.e. lowering the need for redispatching by utilizing the capacity to a higher extent could be rewarded.
 - Congestion income is supposed to cover new investments or go towards tariffs, but leaving a share of it with the TSO could be an incentive, however the inverse relation between capacity and congestion income (i.e. the income goes up when capacity is scarce), could mean that it is tricky to use congestion income as a sole metric to incentivise increase in capacity.

- Full transparency of physical assets data and their utilisation (such as line and substation capacity and load), could form the basis of an alternative metric to incentivize TSOs to maximise available capacity. One such example was CREG (Belgium) incentivising Elia a few years ago, by awarding an annual bonus based on the measured available capacity of interconnectors (and their related inside the countries critical lines). The prerequisite for this is the availability and transparency of data with high time and spatial resolution, which the regulator could/should mandate.
- C. *Do you consider that the benefits of solutions addressing system needs, apart from the congestion income reflecting part of the benefits resulting from the expansion of the interconnection capacity, could be quantified in a sufficiently accurate way in order to use them as a reference for regulatory incentives?*
- Cf. Previous question
 - Challenging to quantify benefits, but other, non-market, but physical assets-related indicators could be used, such as % of curtailment of renewable capacity, redispatch cost etc.
 - Yes, other benefits such as the reduction in capital cost, reduction in losses, reduction in cost of ancillary services, reduction in lost load, are all benefits that have been successfully, quantified and monetized for Project of Common Interest. These have all been developed to the satisfaction of member states to endorse the PCIs for selection.
- D. *Do you agree that the sharing of cost savings of innovative and more efficient solutions to system needs with respect to more traditional solutions, as outlined in the text above and in the above-mentioned FSR Report, could be effective in promoting these innovative and more efficient solutions to system needs?*
- Yes certainly
 - However, the key to the success of this promotion and uptake by system operators/developers would be the division of the savings. Too small and the loss in earnings over the forthcoming years through reduced RAB would be too great to stimulate interest in upfront revenue through cost sharing.
- E. *Do you see any difficulties in implementing the proposed scheme? If so, which are they?*
- There could be practical difficulties related to defining the needs and ways, in particular to ensure that all relevant “efficient ways” are considered. The NRA could have a consultation to ensure that all the relevant efficient ways are considered by the TSO.
 - One key difficulty relates to “The regulator then comes up with the costs related to the standard efficient way of addressing the need or set of needs and the period over which the corresponding allowed revenues would be awarded. These costs would include OPEX and CAPEX.” We have repeatedly seen, in many countries, a lack of sufficient data, and or sufficient knowledge on the part of regulators, to allow them to properly make those cost estimates of “standard

efficient ways". This would leave the regulators very exposed to information bias. One solution that has been implemented by some regulators is the retention of the services of an independent consultant who can perform this role and reduce the costs in manpower and equipment (notably network modelling software)

- National consultations and international coordination (ACER) could help overcome the information bias.
- It is also necessary to ensure that an innovative solution is just that. For example, there is a risk that the regulator defaults to a new overhead line solution for a linear build and the system operator chooses also an overhead line but of a lower capacity or voltage, to create a reduction in costs they can get cost sharing on. Another worse scenario is that a cable is assumed for environmental reasons and a system operator goes for an overhead solution to reduce the costs, driving a much delayed project, but the system operator is rewarded for this decision with cost sharing.

F. Do you believe that the proposed scheme would present a higher degree of implementation complexity than the regulatory approaches currently in use? If so, why would it be the case?

- This scheme would come on top of the existing regulation, and could add complexity, but since it conceptually is relatively simple, it should be manageable.
- Important that the incentive is strong enough, that the share (alpha) is sufficient that the CAPEX bias is overcome
- Yes, certainly, as explained above, mostly if it leaves Regulators the role of defining and quantifying the costs of the "standard ways of addressing the needs etc.". Most regulators today are ill-equipped technically and operationally to make those assessments. If, as it is/was the case (and still is), they defer to TSO-associations (ENTSO-E for example) to supplement this lack of expertise, that would raise questions over regulatory bodies independence and put the whole solution at risk of being manipulated towards the solutions that TSOs would see as more favorable to them. Consultation and coordination across borders (by ACER) could support the NRA and help secure similar practice in different countries.

G. Do you see, beyond implementation difficulties, other challenges with the proposed scheme? If so, which are they? Do you have any idea on how these challenges could be dealt with?

- Some countries have complex regulations in place, and it could be adding to the complexity of the considerations in countries where there already is a TOTEX system incentivizing efficiency overall. As stated before, beyond the issue of choosing the most efficient solution to address system needs, it is crucial to ensure that the remuneration mechanism offered to TSOs is CAPEX and OPEX neutral, in order not to induce a bias (as it strongly is today) towards infrastructure-heavy and long deployment time solutions. A new regulatory approach should ensure that, fast deployment times, low regret (i.e flexible) solutions are favored, as opposed to high cost, rigid (i.e very high stranded costs

risk if situations change in the next few years, particularly in today's world of high uncertainties) and long deployment times (ref to the last 15 years TYNDP plans which suffer from massive deployment delays). In particular, high penalties should be foreseen when projects are delayed (or the foreseen outcome, in an output-based scenario, fall short of expectation within a regulatory period)

- The lack of an automatic greater reward for reduction in lead-times of a solution. A faster solution benefits the consumer in one of two ways. Where a standard solution cannot be delivered to address a need in time, it delivers a more timely solution and therefore providing great benefits to the consumer on the intervening years of the innovative solution is completed compared to the standard approach. Alternatively, when the standard solution takes longer to build but can meet the time that the need arises the faster innovative solution can be started later than the standard solution still meet the needs and avoid expenditure in the earlier years. Both are easy to calculate by using the typical expenditure profile of the standard costs compared to the innovative solution.
- The ability of a single solution to answer multiple needs, should be permissible, as it offers even greater benefit for the consumer.